In the Claims:

Please add the following claims:

22.   A method for establishing a virtual path aggregation in a network, the method comprising:

        receiving a request for a virtual path aggregation, wherein the request indicates a desired data path between a source switch and a destination switch, wherein the request includes a traffic descriptor;

        determining if there is a trunk group within the source switch suitable for the virtual path aggregation;

        when the trunk group suitable for the virtual path aggregation is present:
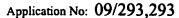
                comparing bandwidth characteristics included in the traffic descriptor of the virtual path aggregation with bandwidth limitations of the trunk group;

                when the bandwidth characteristics of the virtual path aggregation compare unfavorably with the bandwidth limitations of the trunk group, rejecting the virtual path aggregation request; and

                when the bandwidth characteristics of the virtual path aggregation compare favorably with the bandwidth limitations of the trunk group, creating the virtual path aggregation such that the virtual path aggregation corresponds to the trunk group.

23.   The method of claim 22, wherein when the trunk group suitable for the virtual path aggregation is not present:

                comparing the bandwidth characteristics of the virtual path aggregation with bandwidth limitations of a port within the source switch;

when the bandwidth characteristics of the virtual path aggregation compare favorably with the bandwidth limitations of the port, creating the virtual path aggregation such that the virtual path aggregation corresponds to the port; and

when the bandwidth characteristics of the virtual path aggregation compare unfavorably with the bandwidth limitations of the port, rejecting the virtual path aggregation request.
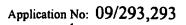
24.   The method of claim 23, wherein creating the virtual path aggregation such that the virtual path aggregation corresponds to the port further comprises creating the virtual path aggregation such that the virtual path aggregation supports permanent virtual connections.

25.   The method of claim 22, wherein creating the virtual path aggregation such that the virtual path aggregation corresponds to the trunk group further comprises:

for at least one service category within the trunk group, determining if bandwidth limitations of the virtual path aggregation corresponding to the service category are more restrictive than bandwidth limitations of the trunk group corresponding to the service category;

when the bandwidth limitations of the virtual path aggregation are more restrictive, updating a routing table to reflect the bandwidth limitations of the virtual path aggregation for the service category; and

when the bandwidth limitations of the trunk group are more restrictive, updating the routing table to reflect the bandwidth limitations of the trunk group for the service category.

26.   The method of claim 25, wherein updating the routing table further comprises broadcasting bandwidth limitations to at least one additional routing table in the network.

27.   The method of claim 22, wherein creating the virtual path aggregation such that the virtual path aggregation corresponds to the trunk group further comprises creating the virtual path aggregation such that the virtual path aggregation supports virtual channel connections.

28. The method of claim 22, wherein the virtual path aggregation is virtual path connection that supports at least one virtual channel connection, wherein set up and shaping of the virtual path aggregation provides set up and shaping of the at least one virtual channel connection.

29. An apparatus for connection admission control comprising:

a processor;

a memory operably coupled to the processor, wherein the memory stores a connection admission control algorithm, wherein when executed by the processor, the connection admission control algorithm causes the processor to:

determine, in response to a request for a virtual path aggregation, if there is a trunk group, within a source switch, suitable for the virtual path aggregation, wherein the request indicates a desired data path between the source switch and a destination switch, wherein the request includes a traffic descriptor;

reject the virtual path aggregation request when:

there is a trunk group within the switch suitable for the virtual path aggregation; and

bandwidth characteristics of the virtual path aggregation that are included in the traffic descriptor compare unfavorably with bandwidth limitations of the trunk group; and

create the virtual path aggregation such that the virtual path aggregation corresponds to the trunk group when:

there is a trunk group within the switch suitable for the virtual path aggregation; and

the bandwidth characteristics of the virtual path aggregation compare favorably with bandwidth limitations of the trunk group.
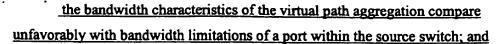
30. The apparatus of claim 29, wherein the connection admission control algorithm further comprises operating instructions that cause the processor to:

reject the virtual path aggregation request when:

there is not a trunk group within the switch suitable for the virtual path aggregation; and

the bandwidth characteristics of the virtual path aggregation compare unfavorably with bandwidth limitations of a port within the source switch; and

create the virtual path aggregation such that the virtual path aggregation corresponds to the port when:

there is not a trunk group within the switch suitable for the virtual path aggregation; and

the bandwidth characteristics of the virtual path aggregation compare favorably with bandwidth limitations of the port.

31.   The apparatus of claim 29, wherein the connection admission control algorithm further comprises operating instructions that cause the processor to create the virtual path aggregation corresponding to the trunk group such that the virtual path aggregation supports switched connections.

32.   The apparatus of claim 29, wherein the connection admission control algorithm further comprises operating instructions such that when the processor creates the virtual path aggregation corresponding to the trunk group, the processor

determines, for at least one service category within the trunk group, if bandwidth limitations of the virtual path aggregation corresponding to the service category are more restrictive than bandwidth limitations of the trunk group corresponding to the service category;

updates a routing table to reflect the bandwidth limitations of the virtual path aggregation for the service category when the bandwidth limitations of the virtual path aggregation are more restrictive; and

updates the routing table to reflect the bandwidth limitations of the trunk group for the service category when the bandwidth limitations of the trunk group are more restrictive.

33.   The apparatus of claim 32, wherein the connection admission control algorithm further comprises operating instructions such that when the processor updates the routing table, the processor

broadcasts bandwidth limitations in the routing table to at least one additional routing table in the network.

34.   The apparatus of claim 29, wherein the connection admission control algorithm further comprises operating instructions such that when the processor creates the virtual path such that it supports at least one virtual channel connection, wherein set up of the virtual path aggregation provides set up of the at least one virtual channel connection.